

REMARKS

This application has been carefully reviewed in light of the Office Action dated November 20, 2003. Claims 1 to 52 are in the application, of which Claims 1, 12, 26, 27, 38 and 52 are the independent claims. Claims 12 to 25 and 38 to 51 were withdrawn from consideration pursuant to a restriction requirement. Claims 1, 9 to 11, 26, 27, 35 to 37 and 52 have been amended herein. Reconsideration and further examination are respectfully requested.

Claims 27 to 29, 33 to 37 and 52 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 4,243,472 (O'Neill) in view of U.S. Patent No. 2,759,803 (Dauncey). Claim 31 was rejected under 35 U.S.C. § 103(a) over O'Neill in view of Dauncey, and further in view of JP 11-199376 (JP '376). Claim 32 was rejected under 35 U.S.C. § 103(a) over O'Neill in view of Dauncey, and further in view of U.S. Patent No. 4,293,371 (Kokta). Claims 1 to 3, 7 to 11 and 26 were rejected under 35 U.S.C. § 103(a) over O'Neill in view of Dauncey, and further in view of U.S. Patent No. 5,603,762 (Kokune) or page 8 of the present specification. Claims 4 and 30 were rejected under 35 U.S.C. § 103(a) over O'Neill in view of Dauncey, and further in view of Kokune or page 8 of the present specification, and further in view of JP 11-228280 (JP '280). Claim 5 was rejected under 35 U.S.C. § 103(a) over O'Neill in view of Dauncey, and further in view of Kokune or page 8 of the present specification, and further in view of JP '376. Claim 6 was rejected under 35 U.S.C. § 103(a) over O'Neill in view of Dauncey, and further in view of Kokune or page 8 of the present specification, and further in view of U.S. Patent No. 5,902,394 (Burkhart). The rejections are respectfully traversed.

Claims 1, 26, 27 and 52 recite, *inter alia*, that no part of the substrate is disposed at the center of rotation of the crucible (Claims 1 and 26) or at the center or rotation of the supporting rack (Claims 27 and 52). By virtue of this feature, uniform growth on the

substrate is more easily achieved. This is due to the fact that the melt flows more slowly at the center of the crucible or supporting rack. See, for example, page 9, lines 5 to 14, of the present specification.

The Office Action concedes that O'Neill does not disclose the foregoing feature. Yet, the Office Action asserts that it would have been obvious to modify O'Neill with Dauncey's supporting rack because a larger number of substrates can be supported, with increasing productivity.

However, it is only Applicants' own specification that suggests the desirability of rotating the crucible or supporting rack during crystal growth while no part of the substrate is disposed at the center of rotation. The obviousness rejection advanced in the Office Action is an impermissible hindsight rationalization of a result now deemed desirable, but nowhere hinted at in the applied documents. The prior art must, without the benefit of Applicants' specification, provide a motivation for making the necessary changes in a reference. See MPEP § 2144.04.

If the Office Action is relying on a "common knowledge" or "well-known art" rationale in asserting that it would have been obvious to modify the teaching of O'Neill, Applicants respectfully request a citation in support of the position taken in the Office Action. See MPEP § 2144.03.

In view of the foregoing, Applicants submit that the applied documents do not teach or suggest the claimed invention, and it is respectfully requested that the Section 103 rejections be withdrawn.

REQUEST FOR INTERVIEW

Should the Examiner find that the foregoing does not place the application in condition for allowance, the Examiner is respectfully requested to contact Applicants' undersigned representative to schedule a personal interview.

CONCLUSION

Applicants submit that this application is in condition for allowance, and a Notice of Allowance is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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